

Serial No. 10/760,454

Docket No. P-0645

Amdt. dated December 22, 2004

Reply to Office Action of September 23, 2004

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) The A front substrate of a plasma display panel (PDP) including a colorant-added upper dielectric layer, wherein the colorant is  $\text{Co}_2\text{O}_3$ .
2. (Original) The front substrate of claim 1, wherein the colorant controls a light transmittance.
3. (Canceled)
4. (Currently Amended) The front substrate of claim ~~[[3]]~~ 1, wherein  ~~$\text{Nd}_2\text{O}_3$  is added in the range of 0~40 wt %, and cobalt oxide~~  $\text{Co}_2\text{O}_3$  is added in the range of 0~10 wt %.
- 5 - 34 (Canceled)
35. (New) The front substrate of claim 1, wherein the colorant is a material for controlling a light transmittance.

36. (New) The front substrate of claim 1, wherein the upper dielectric layer comprises a glass powder, wherein the glass powder is one of PbO-B<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>-RO group, P<sub>2</sub>O<sub>5</sub>-B<sub>2</sub>O<sub>3</sub>-ZnO group, ZnO-B<sub>2</sub>O<sub>3</sub>-RO group, and PbO-B<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>-BaO group.

37. (New) The front substrate of claim 36, wherein the upper dielectric layer is formed by mixing 65wt% of PbO, 10wt% of B<sub>2</sub>O<sub>3</sub>, 20wt% of SiO<sub>2</sub> and Al<sub>2</sub>O<sub>3</sub> and 5wt% of RO.

38. (New) The front substrate of 37, wherein the RO is one of BaO, SrO, La<sub>2</sub>O, Bi<sub>2</sub>O<sub>3</sub>, MgO and ZnO.

39. (New) The front substrate of claim 36, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of P<sub>2</sub>O<sub>5</sub>, 3.3wt%~22.0wt% of B<sub>2</sub>O<sub>3</sub> and 36.1wt%~44.7wt% of ZnO.

40. (New) The front substrate of claim 36, wherein the upper dielectric layer is formed by mixing 34.0wt% of ZnO, 29wt% of B<sub>2</sub>O<sub>3</sub> and 37.0wt% of RO, wherein the RO is one of BaO, SrO, La<sub>2</sub>O, Bi<sub>2</sub>O<sub>3</sub>, MgO and Zno.

41. (New) A dielectric composition for a dielectric layer in a plasma display panel (PDP) comprising:

a glass powder, wherein the glass powder includes  $P_2O_5$ - $B_2O_3$ -ZnO group; and  
a colorant.

42. (New) The dielectric composition of claim 41, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of  $P_2O_5$ , 3.3wt%~22.0wt% of  $B_2O_3$  and 36.1wt%~44.7wt% of ZnO.

43. (New) The dielectric composition of claim 41, wherein the colorant is at least one of  $Nd_2O_3$ , CoO,  $Co_3O_4$  and  $Co_2O_3$ .

44. (New) The dielectric composition of claim 43, wherein  $Nd_2O_3$  is added in the range of 0~40 wt %, and at least one of  $Nd_2O_3$ , CoO,  $Co_3O_4$  and  $Co_2O_3$  is added in the range of 0~10 wt %.

45. (New) A dielectric layer in a plasma display panel (PDP) comprising:  
a glass powder, wherein the glass powder is one of PbO- $B_2O_3$ - $SiO_2$ - $Al_2O_3$ -RO group,  $P_2O_5$ - $B_2O_3$ -ZnO group, ZnO- $B_2O_3$ -RO group, and PbO- $B_2O_3$ - $SiO_2$ - $Al_2O_3$ -BaO group; and

a colorant, wherein the colorant is at least one of  $\text{Nd}_2\text{O}_3$ ,  $\text{CoO}$ ,  $\text{Co}_3\text{O}_4$  and  $\text{Co}_2\text{O}_3$ .

46. (New) The dielectric layer of claim 45, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of  $\text{P}_2\text{O}_5$ , 3.3wt%~22.0wt% of  $\text{B}_2\text{O}_3$  and 36.1wt%~44.7wt% of  $\text{ZnO}$ .

47. (New) The dielectric layer of claim 45, wherein  $\text{Co}_2\text{O}_3$  is added in the range of 0~10wt%.

48. (New) A plasma display panel comprising a front substrate, and an upper dielectric layer on the front substrate, the upper dielectric layer comprising:

a glass powder, wherein the glass powder is  $\text{P}_2\text{O}_3$ - $\text{B}_2\text{O}_3$ - $\text{ZnO}$  group; and

a colorant, wherein the colorant is at least one of  $\text{Nd}_2\text{O}_3$ ,  $\text{CoO}$ ,  $\text{Co}_3\text{O}_4$  and  $\text{Co}_2\text{O}_3$ .

49. (New) The plasma display panel of claim 48, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of  $\text{P}_2\text{O}_5$ , 3.3wt%~22.0wt% of  $\text{B}_2\text{O}_3$  and 36.1wt%~44.7wt% of  $\text{ZnO}$ .

50. (New) The plasma display panel of claim 48, wherein  $\text{Co}_2\text{O}_3$  is added in the range of 0~10wt%.

51. (New) A method for fabricating a front substrate of a plasma display panel (PDP) comprising:

forming glass powder with a colorant added therein at a prescribed rate, wherein the colorant is  $\text{Co}_2\text{O}_3$ ;

forming a dielectric paste by mixing the glass powder, a binder and a solvent, and wherein the glass powder is  $\text{P}_2\text{O}_5$ - $\text{B}_2\text{O}_3$ - $\text{ZnO}$  group;

coating the dielectric paste at the entire surface of the upper glass substrate with a transparent electrode and a bus electrode formed thereon to form a dielectric paste layer; and

firing the dielectric paste layer.

52. (New) The method of claim 51, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of  $\text{P}_2\text{O}_5$ , 3.3wt%~22.0wt% of  $\text{B}_2\text{O}_3$  and 36.1wt%~44.7wt% of  $\text{ZnO}$ .

53. (New) The method of claim 51, wherein  $\text{Co}_2\text{O}_3$  is added in the range of 0~10wt%.